Documentation of Oil Impacted Wildlife Using ArcPad

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Project Development

Scientific Branch - Response Support Unit

- 1. Staff Environmental Scientist GIS Lead/Coordinator
- 2. Research Program Specialist (GIS)
- 3. Research Analyst (GIS)
- 4. Management Services Technician



Shours Walland The Tigmer-Standard

Arry Mayville of Eureka examines bunker oil on west shore of Humboldt Bay near Fairhaven, Bob Graves of Fairhaven is in

Coset Guard craw abourd a tugbow deploys oil booms near fuel leaking from disabled Kure, background. The Kure had the Louisiene-Pacific mill dock in Humboldt Bay to contain leaked 5,100 gellons of fuel by late Wednesday.

Oil mishap at worst time for wildlife

Fall is busy time for migrating birds, native fish, mammals

By David Anderson

back by now, pelicana are atill here and migrarita are possing the U.S. Coast Guard.

But the danger continues, Oldridge said, because the heavy bunker oil stays on the water surface without dispersing. That means continuing danger for bards, but less for fish.

"If fish don't break the sorther

oil would reach the Humboldt flay National Wildlife Refuge.

The 2.200-acre refuge protects seasoned wetlands, salt marshes, nutrient-rich modifiers and colgrass beds, mostly on the South How A brown was placed near little era could have disastrous results.

stood by Wednesday to see if the brunt, stop here during interation to feed on the cel grane.

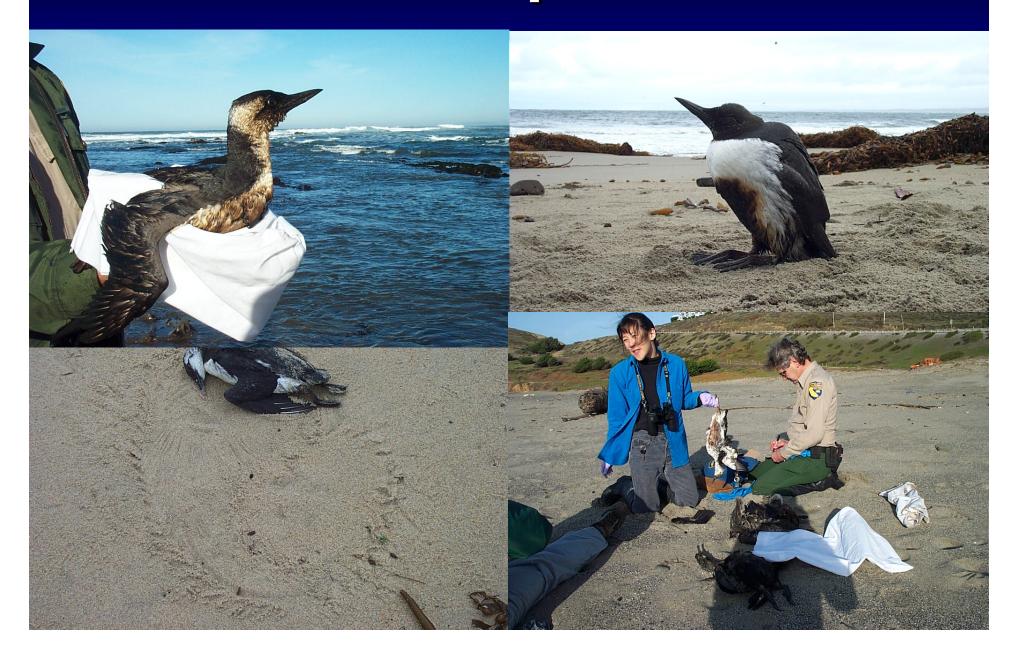
> As many as 32,000 of the small son good may be present on the buy at one time, according to the fish and wildlife service. An off split that contaminates their food spurce, or coats the birds feath

also has a large wintering population of ducks, grebes, cormoranta, gulle and loons. And endangered brown pelicans gather on the bay in fall after dispersing from their breeding colonies further south.

Sheen Walter The Times Standard

Birds swimming or wading through of slicks have small chance of survival if their feathers

Wildlife Operations

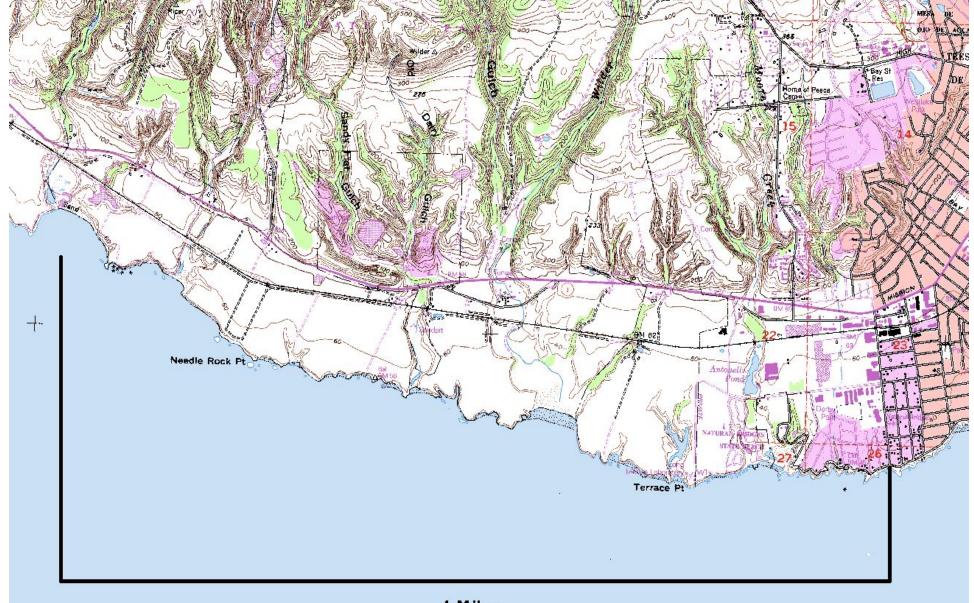


Challenges of Documenting Oiled Wildlife Data

Field Challenges

- Out of town/state personnel
- Unfamiliar area / locations
- Multiple geographic names of the same area
- Incorrect geographic name recorded
- Hand-recorded field data Illegible





4-Miles

GIS Integration Challenges

- Hand-recorded intake data Illegible
- Copies of intake data not always complete
- Data entered manually





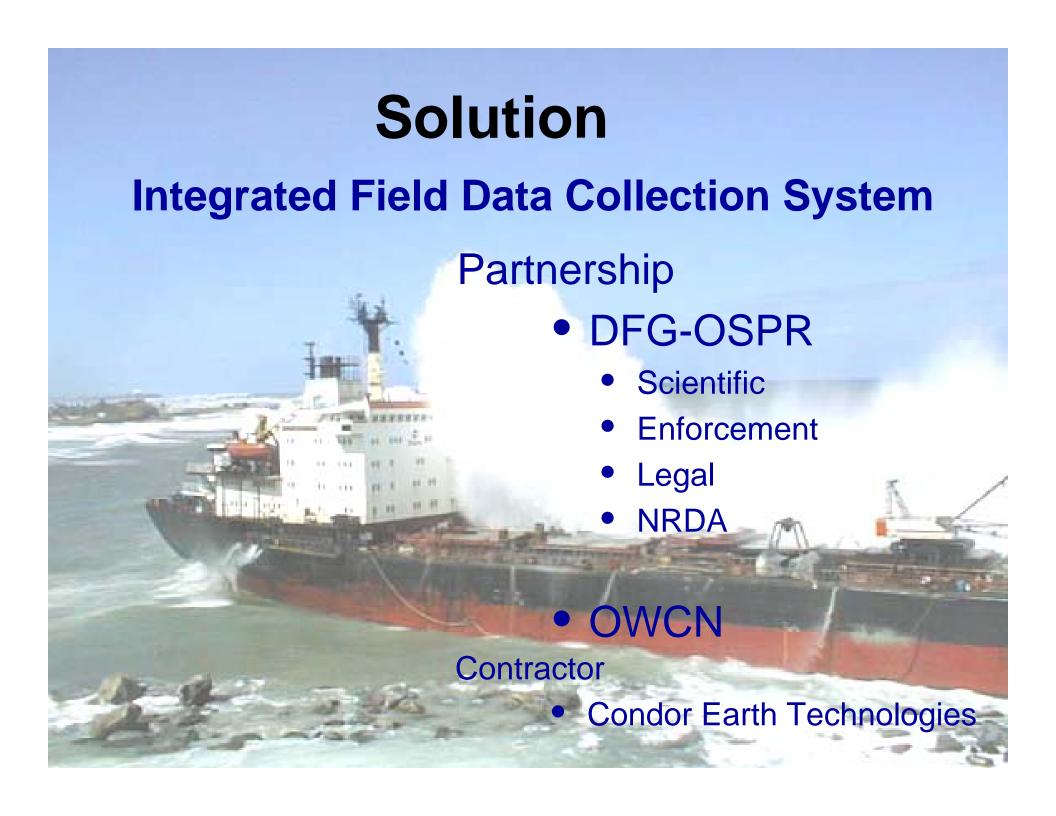
Year of Processing:	
Page of	

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The state of the s	
Data Collector:	
Data Recorder:	
Photographer:	

Intake No.	Date Coll'ted m/d	Date Arrived m/d	Date Proc'd m/d	Coll'tion Location	Time Proc'd 24 hr	Species	Band Number	Extern. Oil Visible?	Oil not visible but oiled?*	Feather/oil Sample Taken?	Photo Taken?	Disp.	Disp. Date	Morgue Bag/ Box	Bar Code
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^{*}Oil not visible but animal is oiled based on one or more of the following: smell oil, plumage malaligned/parted or sticky, skin wet/not water-proof, skin burns

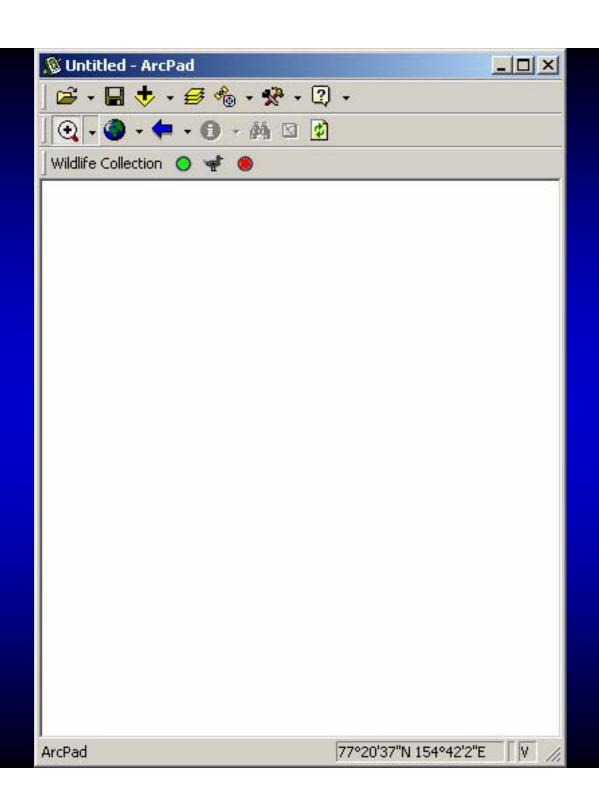


Characteristics of a Successful Integrated Field Data Collection System

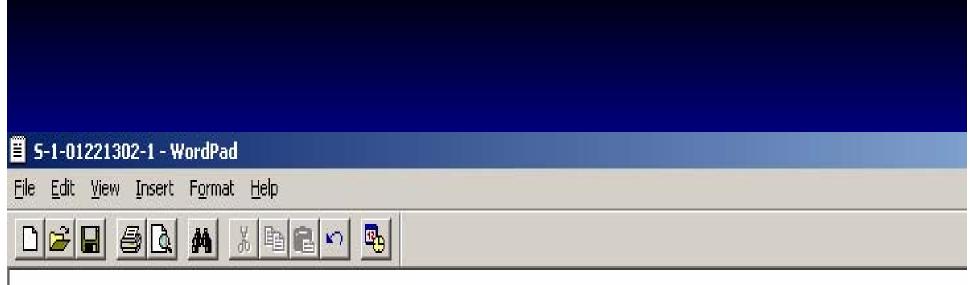
- Simple
- Easy-to-Use
- Reliable
- Ruggedness
- Easy GIS Integration

Field / Office Equipment

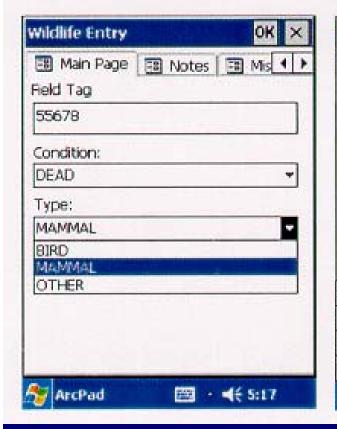


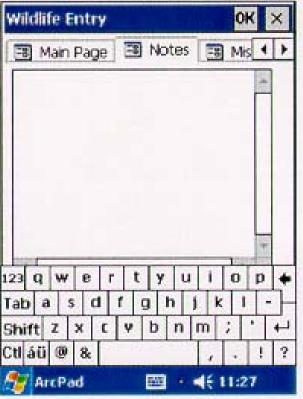


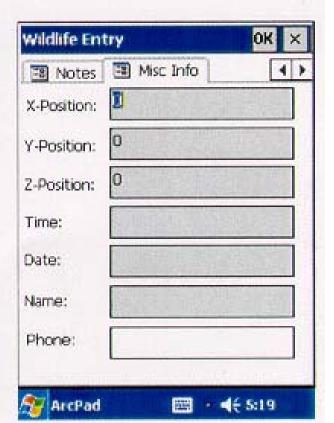
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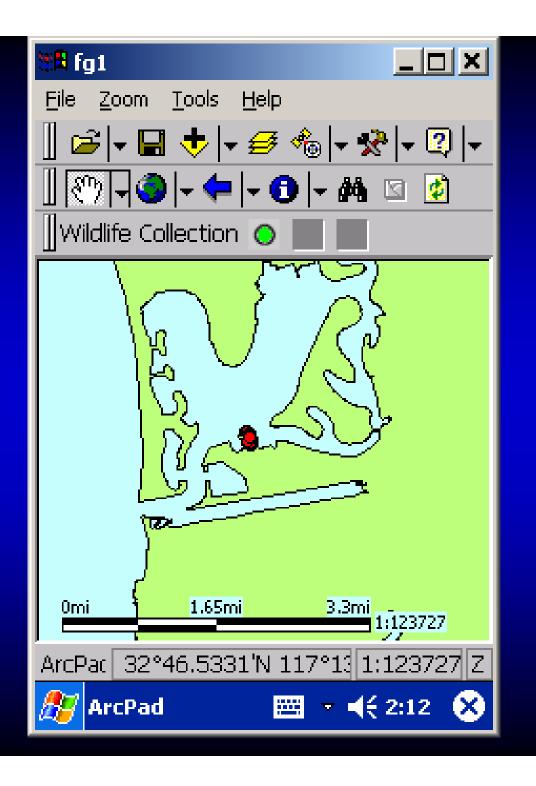


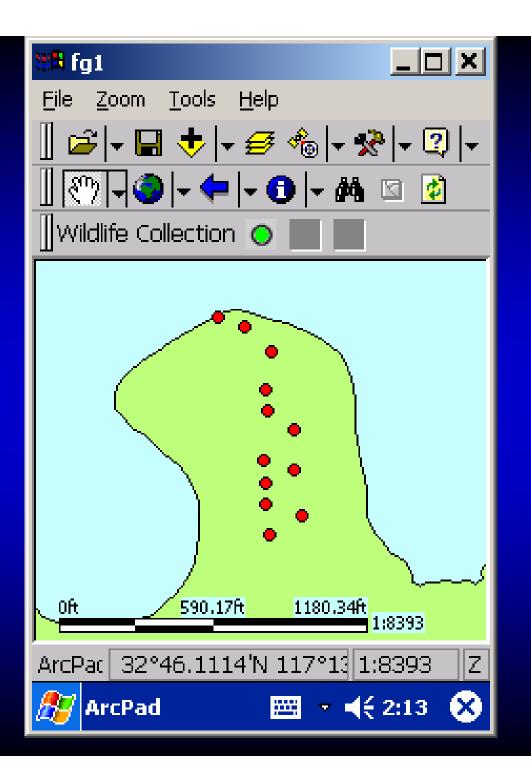
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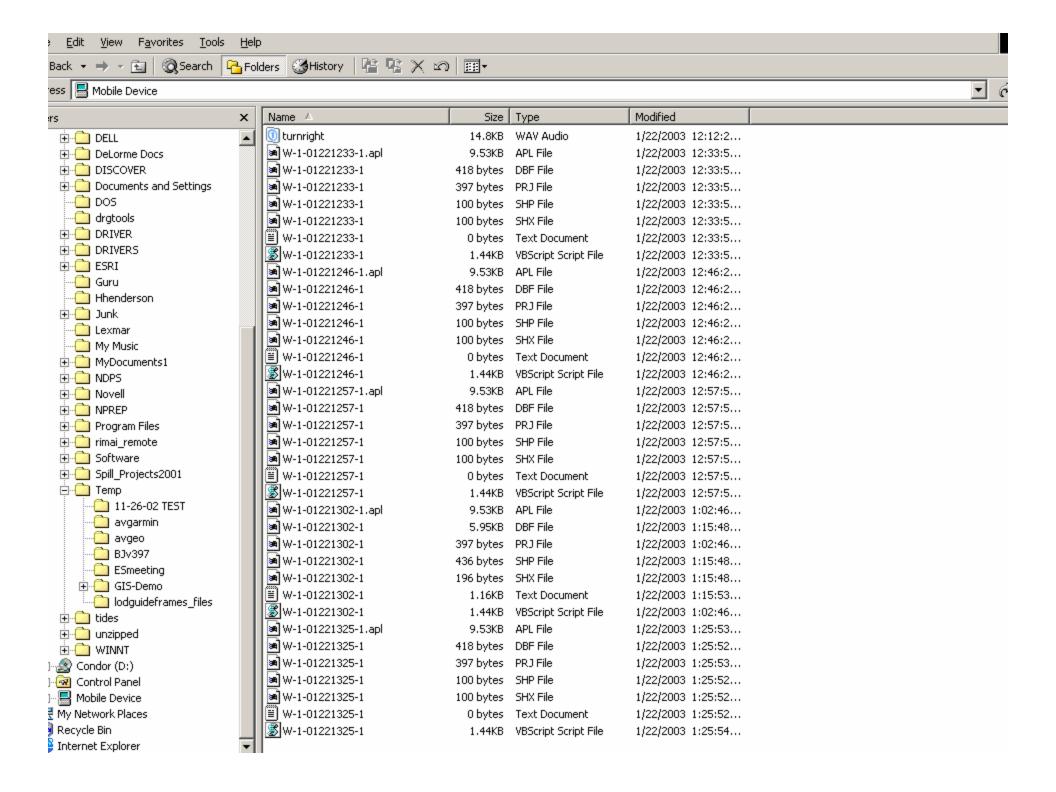


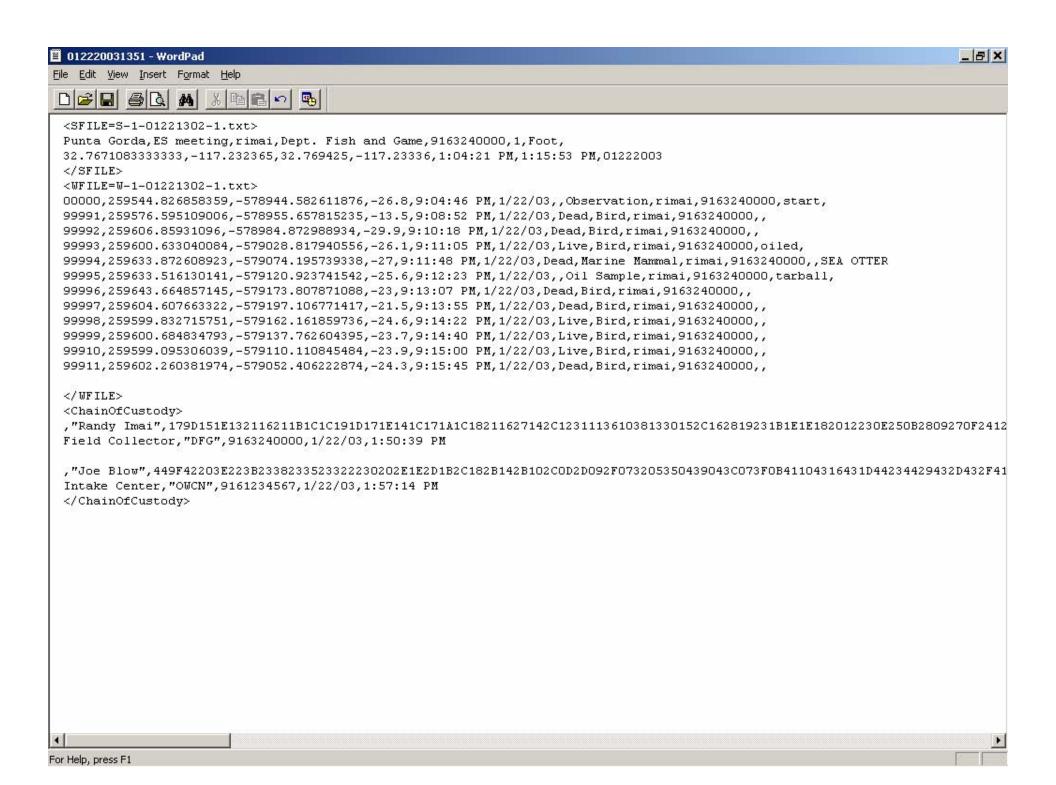


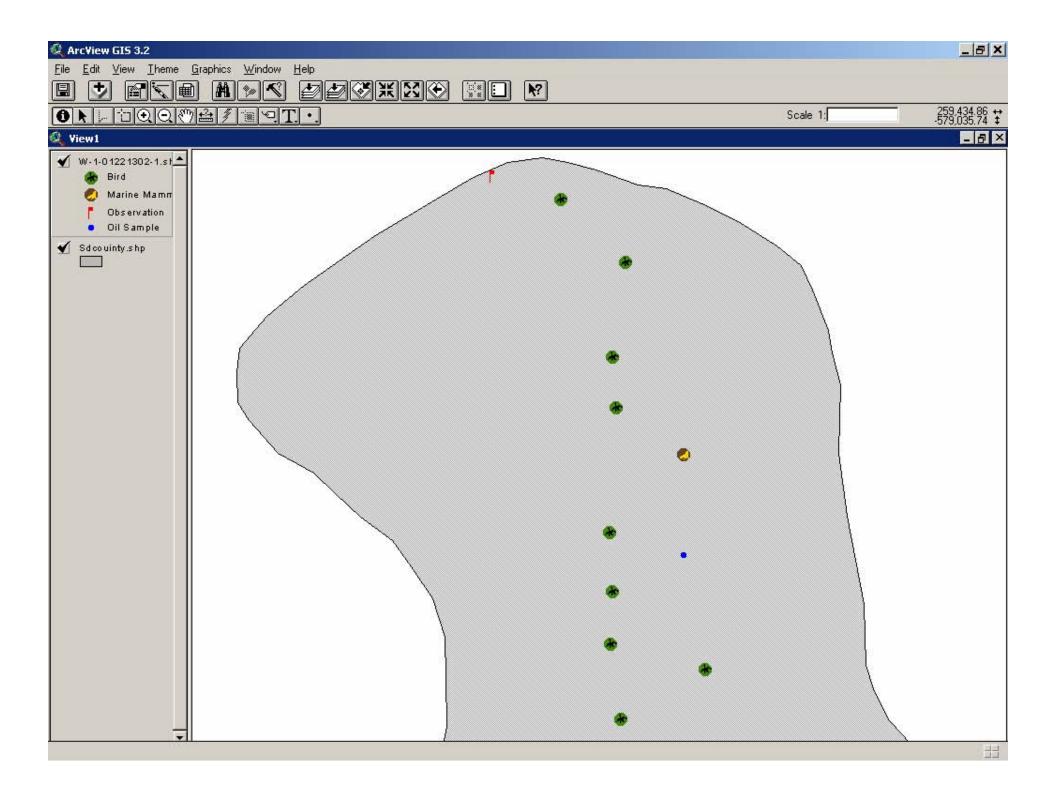














Attributes of W-1-01221302-1.shp									
Field_tag	Time	Date	Condition	Туре	Name	Phone			
00000	9:04:46 PM	1/22/03		Observation	rimai	9163240000	start		
99991	9:08:52 PM	1/22/03	Dead	Bird	rimai	9163240000		(8) (8	
99992	9:10:18 PM	1/22/03	Dead	Bird	rimai	9163240000			
99993	9:11:05 PM	1/22/03	Live	Bird	rimai	9163240000	oiled		
99994	9:11:48 PM	1/22/03	Dead	Marine Mammal	rimai	9163240000			
99995	9:12:23 PM	1/22/03		Oil Sample	rimai	9163240000	tarball		
99996	9:13:07 PM	1/22/03	Dead	Bird	rimai	9163240000			
99997	9:13:55 PM	1/22/03	Dead	Bird	rimai	9163240000			
99998	9:14:22 PM	1/22/03	Live	Bird	rimai	9163240000		.0000	
99999	9:14:40 PM	1/22/03	Live	Bird	rimai	9163240000		.0000	
99910	9:15:00 PM	1/22/03	Live	Bird	rimai	9163240000			
99911	9:15:45 PM	1/22/03	Dead	Bird	rimai	9163240000		88318	

BUGS

- Creates blank files if you make a mistake
- Not GPS rugged
- NSEW extent capture
- No Backup

What Next

- Correct bugs
- Test revised application
- Conduct field trials
- Conduct training sessions

